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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,780	12/27/2001	Ioannis Pavlidis	H0002442-2	1212

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EXAMINER

LAVIN, CHRISTOPHER L

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/034,780</p>	<p>Applicant(s)</p> <p align="center">PAVLIDIS ET AL.</p>	
	<p>Examiner</p> <p align="center">Christopher L. Lavin</p>	<p>Art Unit</p> <p align="center">2624</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-12,14 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-12,14 and 17-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some.* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 11/27/06.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1, 4 – 7, 14, and 17 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Stauffer et al. ("Adaptive background mixture models for real-time tracking", Proceedings 1999 IEEE Conference on Computer Vision and Pattern Recognition, Fort Collins, Col., 1999 June 23 – 25; 2:246 – 252), Menon (5,537,488) and Uyttendaele (6,701,030).

The examiner maintains the previous rejection of claims 13 and 26 (which with the amendment have now been incorporated into claims 1 and 14 respectively) from the last office action dated 08/22/06. The only new material added to the claims was a requirement for a camera that image both at night and during the day. Stauffer

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discloses on page 251, in section 4, that the system is intended to work during both the day and the night, also Stauffer discloses the use of a Sony NightShot camera.

The remaining rejections are maintained from the last office action dated 08/22/06.

5. Claims 8 – 10 and 21 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Stauffer, Menon, and Uyttendaele in view of Sacks (4,739,401).

6. Claims 11, 12, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Stauffer, Menon, and Uyttendaele in view of Baxter (5,966,074).

Response to Arguments

7. Applicant's arguments filed 11/27/06 have been fully considered but they are not persuasive.

8. The applicant's arguments are focused on the justifications for the 103 rejections using Menon and Uyttendaele. The examiner has addressed this issue for Menon before and therefore will simply repeat the last response from office action dated 08/22/06.

The examiner would like to again state that Menon was brought in to teach a simple and well known concept in the art. That concept was to check was to check all possible items for a match and then select the best match. Menon clearly teaches this. Menon compares a pattern to every possible category, then the best match is chosen. There is clear motivation to make this change to Stauffer, both in what the examiner has provided and even in Menon, for example (col. 5, line 65 – col. 6, line 8) Menon teaches

that a pattern can be matched to multiple categories, as long as it meets a threshold. Stauffer also uses a threshold to determine a match. So Menon is teaching that a match threshold is not good enough to guarantee the best match, and therefore all of the categories should be checked before determining a best match. Obviously using the best match instead of the first match will lead to more accurate results.

In regards to applicant's first argument "there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Stauffer et al. with the teachings of Menon et al."

The examiner did provide motivation and as previously discuss Menon also provides motivation for this combination. As cited in MPEP 2143.01

"Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art."

The examiner is one of ordinary skill in the art, and therefore has provided the motivation required to prove obviousness. It should also be pointed out that in the art of image processing the definition of one of ordinary skill in the art is quite high.

9. With regards to Uyttendaele, it is first noted that Uyttendaele was chosen to teach the concept of overlapping frames, nothing to do with imaging. The concept of tracking using overlapping frames is very well known. To show this point the examiner is including a related reference to Stauffer, Lee et al. ("Monitoring Activities from Multiple Video Streams: Establishing a Common Coordinate Frame"), which was created by the same team working on Stauffer (see <http://www.ai.mit.edu/projects/vsam/>). Lee teaches that a plurality of imaging devices is mosaiced together for tracking objects. Thus there is an expectation of success of the combination of Uyttendaele and Stauffer.

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Uyttendaele does not need to disclose tracking to be combined with Stauffer as Uyttendaele was not provided to teach the concept of tracking. The examiner provided a reasonable motivation to combine the two teachings and has shown that there would be a reasonable expectation of success.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Lee et al. "Monitoring Activities from Multiple Video Streams: Establishing a Common Coordinate Frame", IEEE PAMI Special Section on Video Surveillance and Monitoring (2000).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher L. Lavin whose telephone number is 571-272-7392. The examiner can normally be reached on M - F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher Lavin



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